

GDM 2020 - Standard Edition

The geologist's software

> Overview

GDM displays and models 3D geological data (data with X,Y,Z coordinates),

- regardless of their type: geological boundaries, faults, drill holes, samples,
- and regardless of their format: geological codes, descriptions, analysis tables, well logs, images.

GDM connects to Text (CSV) / Excel / Access / Oracle / SQL Server / PostgreSQL / MySQL data.

GDM produces vector graphics:

- multilayer graphics: maps, vertical sections,
- multicolumn graphics: drill hole strip logs, and raster graphics: 3D dynamic views.

GDM models data:

- on maps and sections,
- taking faults and boundaries into account,
- automatically (by interpolation) or manually (by digitization).

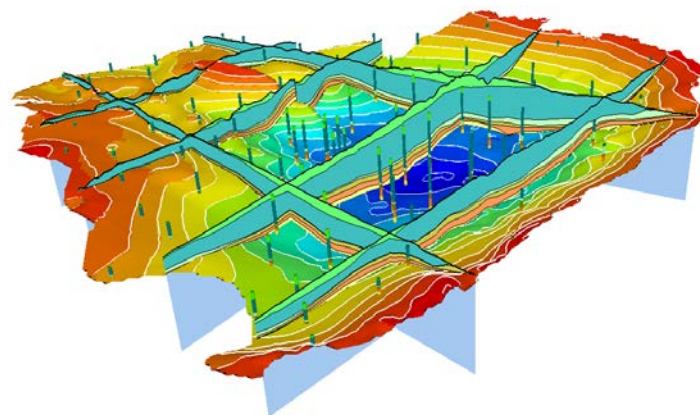
> Fields of application

- Mineral resources exploration and mining,
- Underground water management,
- Tunnel, dam, underground storage design,
- Urban development planning,
- Soil pollution assessment.

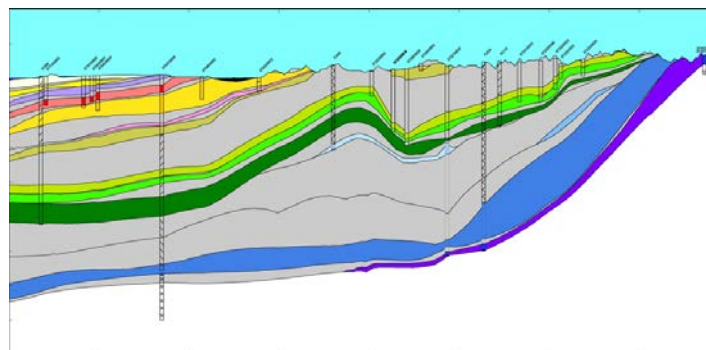
> Product line

- GDM 2020 Standard Edition, Windows application :
 - Single user or network licenses
 - University / Geological Survey licenses
- Extensions to integrate GDM functions in a GIS or internet application :
 - MultiLayer Extension : to build 3D geological models
 - GDM for ArcGIS
 - Web Services or Internet applications

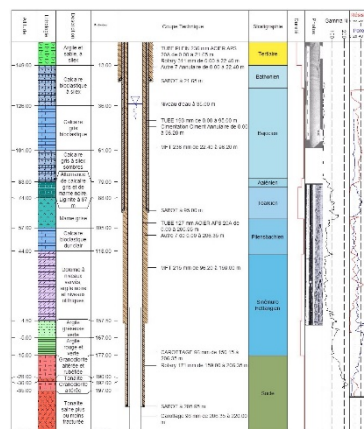
Conditions / Price List - Please contact us



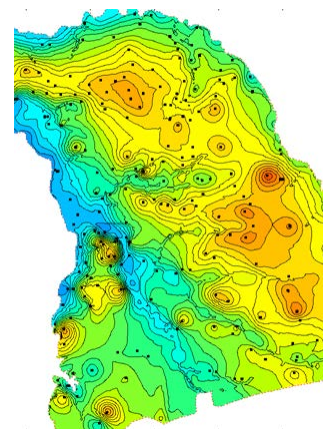
Paris basin (France) – 3D model of tertiary and cretaceous formations



Cross section in a geological model – Aquitaine basin - France



Water well strip log



Isolines of the top of a layer



> Contact

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Geoscience for a sustainable Earth

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Technical features

DATA MANAGEMENT

General features

- Direct connection to Access 2007, Oracle, SQL Server, PostgreSQL, MySQL databases (read only)
- Direct connection to Excel 2007, Text (CSV) files (read only)
- All the above formats can also be imported into GDM
- Handles global and local coordinates, in various units
- Unlimited number of records
- Up to 600 numerical fields
- Text fields: up to 10000 characters
- Code fields: up to 200 fields
- Numeric fields: distinct zero and missing values
- Automatic calculation of numeric field statistical parameters
- Selection criteria allowed on all fields
- Export: XLS, XLSB, MDB, ACCDB, MIF, SHP
- Vertical or deviated drill holes processing
- Merge drill hole data sources according to depth
- Determination of formations and composites from drill hole data
- Determination of facies proportions in a layer
- Project a grid variable (eg. DTM) on a dataset

In the GDM databases

- Define, save, and load database models
- Delete, add, insert, copy, cut and paste records
- Search, replace, and repeat field values
- On-screen digitization of 3D points, curves, and polygons on maps or on straight / non straight sections
- Other imports: MIF, SHP, ESRI Ascii grid
- Update (through key field), and concatenate records
- Create new field values with operators and functions
- Calculate projected area of 3D polygons

INTERPOLATION

- Take faults, polygon boundaries, indicator variable into account
- Estimate points, and point or block grids
- 8 different interpolation methods, including kriging
- Computation of kriging standard deviation
- Polynomial or/and external drift
- Neighborhood search: global, or rectangular, or by octants taking into account data grouped by profiles or clusters
- Control of data pre-sorting and aggregation threshold
- Save and load grid models and interpolation parameters
- Computation of histograms, variograms computation and modelling, cross validation

GRAPHICS

General features

- Catalogs of patterns, 2D/3D symbols, and line types
- Display of images stored in point/drill hole data sources: JPG, BMP, GIF, TIF, PNG, WMF images.
- Export plan views, sections, and strip logs in WMF, and 3D views in raster
- Click on a database record to point to the data location on all displayed maps, sections, strip logs, or 3D views
- Click on map / section / 3D view to display strip log, or to point to the database record
- Click on strip log to point to the database record, or to the data location on all displayed maps, sections, or 3D views
- Tailored colours, symbols and patterns

Plan view and cross-sections

- Plot in global or local coordinates
- Multiple layer plots: up to 50 overlaying layers, 9 layer types
- Superimpose data on single or multiple basemap images
- Calculation of distances and angles
- Straight sections, or broken line sections
- Serial sections

- Independent horizontal and vertical scaling of sections
- Sample plotting: controlled symbol, identifier, and labels (8 label locations around symbol)
- Down hole data plotting: drill hole trace, text, patterns, line / bar plots, symbols
- Curve data plotting: controlled line type and / or area filling
- Interpolated data representation: contour lines with or without colored filling, or colored grid blocks
- Interpolated layers are displayed on straight or non straight sections

Strip logs

- Standard or imported log heading
- Up to 200 user-defined columns
- 14 column types: texts, patterns, images, well construction, well logging, symbols, etc.
- Click to duplicate, shift or overlay columns
- Print / export drill hole log series
- Page setup to select your output - large plotter sheet or several printer sheets

3D dynamic views

- Layer types: points, drill holes, 3D curves, faults, grids (interpolated surfaces), vertical straight or non straight sections
- Rotation, zoom, and translation
- Expansion along the Z coordinate
- Two movable vertical cut planes
- Projected image on 3D surface

- For Windows 10, in stand alone / network version
- Project structure interface with pop-up menus
- Windows MDI (Multiple Document Interface)
- Windows fonts and colors for graphics
- 32/64 bits .Net technology



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